

## ABSTRACT

The present invention provides a novel client side caching (CSC) infrastructure that supports transition states at the directory level to facilitate a seamless operation across connectivity states between client and remote server. More specifically, persistent  
5 caching is performed to safeguard the user (*e.g.*, client) and/or the client applications across connectivity interruptions and/or bandwidth changes. This is accomplished in part by caching to a client data store the desirable file(s) together with the appropriate file access parameters. Moreover, the client maintains access to cached files during periods of disconnect. Furthermore, portions of a path can be offline while other portions  
10 upstream can remain online. CSC operates on the logical path which cooperates with DFS which operates on the physical path to keep track of files cached, accessed and changes in the directories. In addition, truth on the client is facilitated whether or not a conflict of file copies exists.

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